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Original Research Paper

Medicine

ISCHEMIC CEREBROVASCULAR ACCIDENT IN A NONAGENARY PATIENT

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ABSTRACT Acute cerebrovascular attack (CVA) is the second cause of death in the world and generates high costs in its treatment and recovery, as well as a great socioeconomic impact, since it is the main cause of long-term disability. Although simple brain computed tomography (CT) is still the image recommended by international guidelines for the initial evaluation and decision-making on the management of patients with suspected stroke, in recent years there have been extraordinary advances in timely diagnosis and early stroke with new tools that range from the standardization of cerebral computed tomography angiography as one of the main studies in the initial approach to the use of brain tomography and magnetic resonance imaging (MRI) perfusion techniques, which make it possible to establish the nucleus of the infarct and the potentially salvageable surrounding area, so it is possible to offer therapies that provide the patient with functionality and quality of life in the medium and long term. Taking into account the above, we are encouraged to present this case, of an elderly patient who presented this pathology, where the intestinal ileum was also added.

Objective: To describe cerebral infarction in a nonagenarian affected patient.

Design: Prospective, observational in a single center.

Methodology: This is a systematic review of cerebral infarction in a nonagenarian patient, emphasizing its clinical characteristics and short-term complications. The information and images obtained belong to the medical personnel in charge of the case, whose reinforcements rest on the statistical package Excel, Word and JPG.

KEYWORDS : cerebral infarction, ischemia, skull tomography

INTRODUCTION

Cerebrovascular accidents (CVA) are among the main causes of death in Ecuador. It represents 4.4% of the 41,077 deaths registered in 2020.

In addition, it is one of the pathologies that registered an excess of deaths, between 2019 and 2020. According to the National Institute of Statistics and Censuses (INEC), there were 495 more deaths in the two years. Thus, in 2019 there were 4,607; while in 2020 there were 5,102.

It is a broad hierarchical term. Syndrome that combines a heterogeneous group of diseases that have a common set: vascular changes of the central nervous system, leading to an imbalance between oxygen supply and demand, the consequences of which are tissue and focal brain deterioration.

On the other hand, stroke refers to the nature of the injury and is classified into two main groups: ischemic and hemorrhagic. Ischemic stroke is caused by occlusion of the arteries and involves permanent ischemic damage; however, if the obstruction is transient and resolves spontaneously, transient manifestations will occur indicating a transient ischemic attack, defined as a focal episode of cerebral ischemia lasting less than 60 minutes, and subsequent resolution. On the other hand, hemorrhagic stroke is the rupture of a blood vessel that leads to blood accumulation, either within the brain parenchyma or in the subarachnoid space.

Acute stroke is a frequent neurological emergency, with 17 million cases per year in the world, and is the second cause of death after coronary disease, with 6.5 million deaths per year. It represents a high burden of morbidity and generates high costs in initial medical attention, treatment and rehabilitation in the different health systems of the world. Therefore, in recent years, multiple management therapies have been developed that seek to reduce mortality, providing functionality and quality of life.

Case Presentation

This is a 94-year-old male patient, born and living in Quito, retired occupation, with medical history: Arterial hypertension treated with Losartan, moderately differentiated right submaxillary squamous cell cancer -deep venous thrombosis of the lower left popliteal-tibial limb in clopidogrel treatment time unknown; surgical: prostatectomy. Complete vaccination scheme 3 doses of Covid-19. A relative of the patient refers to a clinical picture of 10 hours of evolution of deterioration in the state of consciousness, with generalized tonic-clonic movements on 2 occasions of approximately 1 minute, denying fever, nausea and vomiting, after which he presents

respiratory distress, limitation in mobilization left leg and arm, for which he goes to this health.

On physical examination: Blood pressure: 140/90mmHg, Temperature 36°C, HR: 119 bpm, FR: 25 rpm; basal saturation of 85%, which requires a reservoir at 3 lpm for 92% saturation. Drowsy, with aphasia, Glasgow 11/15, regular general appearance, Daniels muscle strength scale 2/5, left brachiocrural hemiplegia, cardiopulmonary without apparent pathology, diffusely painful abdomen, absent hydro-air sounds, lower limbs edema ++/+++

In extension tests: leukocytes 9.00 Neutrophils: 86%, Hemoglobin 13 g/dl, procalcitonin 3 ng/ml, creatinine 1.6 ng/dl, RT-PCR for covid-19 negative. It was decided to perform a simple skull tomography. (Photo 1)

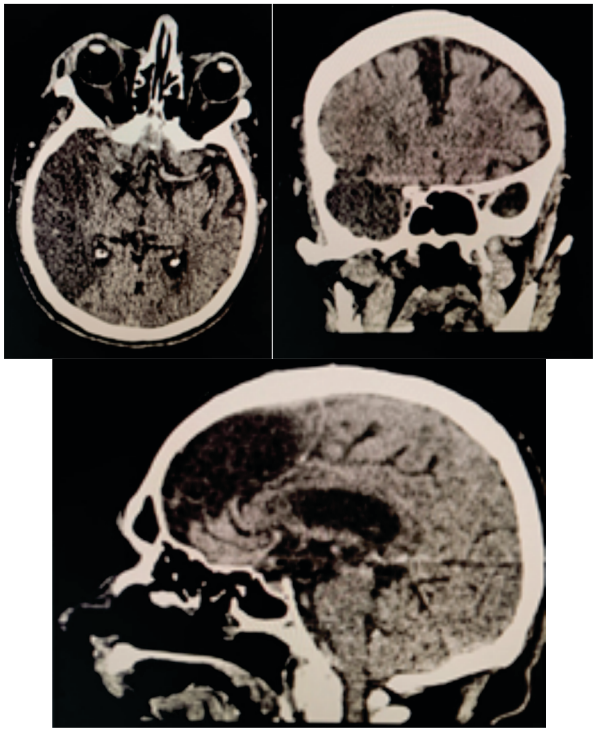

Photo 1:Simple cranial tomography: axial, coronal and sagittal: *hypodense area occupying the right temporal and parieto-occipital cortico-subcortical region, in relation to the area of ischemia that causes a slight mass effect on the right lateral ventricle*

Due to the risk of hemorrhagic transformation, initiation of platelet antiaggregants was not indicated, statin initiation; electrocardiogram no rhythm of atrial fibrillation. carotid ultrasound shows carotid myointimal hyperplasia. (Photo 2)

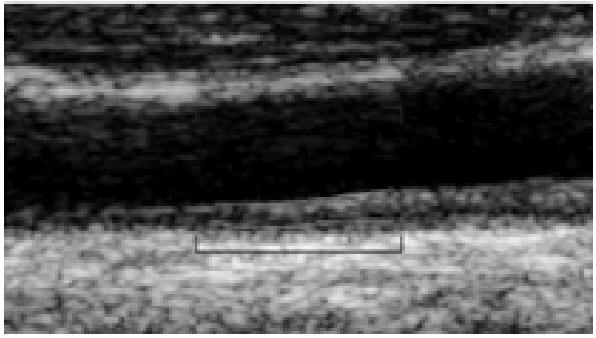

Photo 2:*Carotid ultrasound showing thickening of the myointimal interface, measured at the level of the common carotid*

Since his admission, he has not presented progressive convulsive episodes; improvement is observed in response to stimuli, reaching a Glasgow scale of 12-13/15 (ocular: 4, verbal: 3, motor: 5-6), no swallowing, mobility in the left side of the body up to Daniels 4/5.

Control tomography without showing an increase in the ischemic zone.

To control episodes of hyperactive delirium, Risperidone has been indicated with adequate control.

Patient with favorable evolution is decided discharge and control by external consultation.

DISCUSSION

Acute cerebrovascular accident is a disease with severe morbidity in our country and in other countries of the world, being a frequent neurological emergency and the second cause of death in the world after coronary disease. This generates high costs in treatment and recovery, as well as significant social and economic impacts, making it imperative that clinicians stay abreast of proven diagnostic and therapeutic developments and their impact on quality of life and function. these patients.

The ordered approach, based on an acute ischemic stroke care algorithm, allows for a comprehensive and effective approach to these patients, taking into account that, based on the best available evidence and international guidelines, we have a time window of up to 4.5 hours for intravenous thrombolysis and up to 6 hours to perform mechanical thrombectomy in patients with large-vessel occlusion and neuroimaging with evidence of ischemic penumbra performing magnetic resonance imaging mismatch, which improves clinical outcomes and complications in the short and medium term. It is important to have public health policies focused on educating the Ecuadorian community to recognize the symptoms of a stroke in a timely manner in order to quickly go to a medical center that guarantees the necessary care.

CONCLUSIONS

Review of CT images in neurological emergencies following a systematized search and evaluation pattern reduces the chances of misdiagnosis, as well as injuries that otherwise go unnoticed. Also, considering that the vast majority of hospitals lack specialists to discuss imaging findings in emergency situations 24 hours a day.

The case presented is one of the patients who come to our hospitals, hence the importance of handling them in time to avoid important sequelae, in addition to not forgetting time is the brain, with this we can handle our patient in a more appropriate way.

Conflict Of Interests

The authors declare that they have no conflict of interest.

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